

Primary school student engagement and wellbeing in NSW

This Learning Curve presents findings from the 2015 *Tell Them From Me* primary student survey. The survey measures the engagement and wellbeing of primary students in Years 4, 5 and 6 as well as the classroom, school and family factors that influence student engagement and achievement. *Tell Them From Me* data is presented here in conjunction with data from the National Assessment Program – Literacy and Numeracy (NAPLAN) to explore the links between student engagement and achievement during the primary years.

Key Findings

- Primary school children report that they are highly engaged in school.
- Intellectual engagement starts to decline in the senior years of primary school.
- A gap in teacher-student relationships, effort and aspirations between low- and high-SES students emerges during the primary years.
- Effective teaching and classroom practices have a positive effect on student engagement and achievement.
- A large proportion of primary school children report that they do not feel challenged at school.



The Department of Education is using the self-reporting student survey *Tell Them From Me* to measure student engagement and wellbeing across senior primary and secondary school.

In 2015, the full suite of *Tell Them From Me* surveys was offered to all NSW government schools for the first time. Eighty-three thousand primary students from 800 primary government schools (half of all government primary schools in NSW) took part in the 2015 student surveys. This large scale roll-out of the survey has allowed the Department to analyse state-wide trends in student engagement throughout upper primary school and secondary school.

The suite of *Tell Them From Me* surveys provide valid and reliable evidence that can be used for school self-assessment, planning and reporting. This data can help identify strengths and areas for improvement, assess the impact of current initiatives and inform future programs and policies.

Further detail about the *Tell Them From Me* surveys can be found at the CESE website <http://surveys.cese.nsw.gov.au/>

Children's engagement during primary school

What is engagement?

Student engagement refers to a child's active involvement, commitment and attention to academic and non-academic school activities (Fredricks et al. 2004). It can be measured as social engagement (participation in school life and relationships with peers and teachers); institutional engagement (attendance and behaviour at school); and via intellectual measures such as interest and motivation and the effort put into learning (Canadian Education Association 2009).

Why does it matter?

Research indicates that children's social engagement and wellbeing in the primary grades can establish patterns of school engagement and motivation that have long-term consequences for students' learning (Hamre & Pianta 2001). It is also likely that students who develop stable patterns of engagement in the primary grades are likely to traverse the different stages of secondary school, and any educational challenges that confront them, more successfully (Ladd & Dinella 2009). Primary students' engagement in learning has also been found to be strongly associated with long-term academic growth (Guo et al. 2015). Ladd and Dinella (2009) found that children who exhibited a combination of higher behavioural and emotional engagement across the primary grades made greater academic progress leading into secondary school than those who displayed lower levels of engagement.

Key Findings

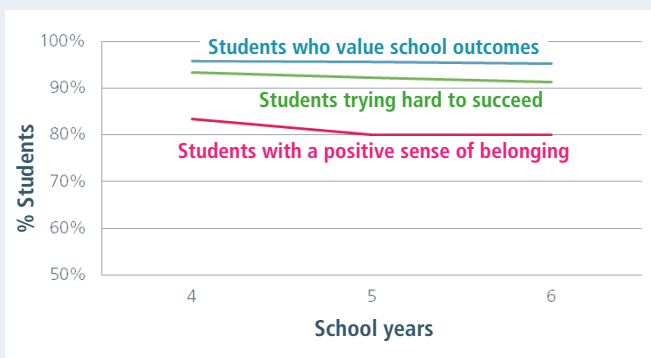
1. Primary school students report high levels of engagement

The *Tell Them From Me* primary student survey reports that the majority of primary students in NSW government schools are socially, institutionally and intellectually engaged. For example, 80 per cent of participating primary students report a positive sense of belonging (a measure of social engagement), 95 per cent value school outcomes (institutional engagement), and around 90 per cent are trying hard to succeed at school (intellectual engagement) (Figure 1).

Primary students' engagement, i.e. their involvement in, and attitudes towards school and learning, are important outcomes of primary school (Australian Institute of Family Studies 2013). Students' sense of belonging, for example, has been linked to various long-term educational outcomes, such as school completion (Archambault et al. 2009). When students feel a sense of belonging at school, their engagement is often enhanced; when they don't, behavioural problems often follow (OECD 2013).

It is very likely that starting secondary school with a positive sense of belonging may help buffer students from a dip in engagement. For instance, school belonging may help students continue to enjoy school and appreciate its usefulness, even when they are struggling academically (Gillen-O'Neel & Fuligni 2013). On the other hand, students who enter secondary school with a lower sense of belonging may continue to be disadvantaged over time, given that students' sense of belonging decreases as they progress through secondary school (CESE 2015).

Figure 1. Students in primary schools are highly engaged



Source: *Tell Them From Me* primary student survey, 2015, NSW government schools.

Data that schools can act on:

Schools that participated in the Term 1 and Term 3 surveys are able to monitor change in students' engagement over the course of the school year. In doing this, some schools have been able to examine whether strategies they have implemented during the school year have led to changes in student engagement and attitudes.

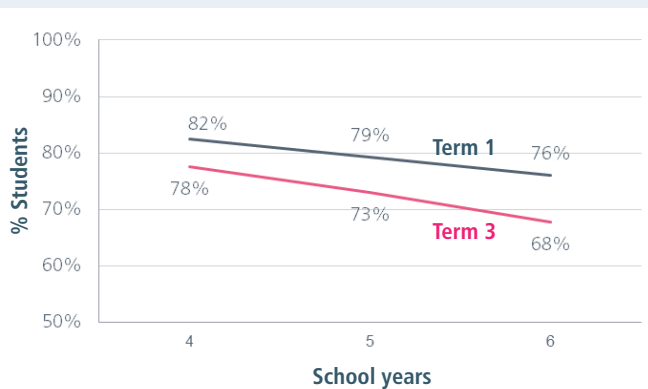


2. Intellectual engagement starts to decline during primary school

Intellectual engagement relates to students' emotional and cognitive investment in learning (Canadian Education Association 2009) and includes concepts such as whether students are interested and motivated, are trying hard to succeed, and are challenged at school.

While primary students tend to have high levels of intellectual engagement, there is a downward trend in intellectual engagement during the late primary years (Figure 2). Findings from the *Tell Them From Me* secondary survey showed that some measures of intellectual engagement continue to decrease significantly throughout secondary school (CESE 2015). Students from schools that did the primary survey in Term 1 and Term 3 in 2015 also showed a decline in intellectual engagement over the course of the school year. The percentage of students who reported positive interest and motivation declined between Term 1 and Term 3 across all year groups, particularly for Year 6 students (Figure 2).

Figure 2. Percentage of students that are interested and motivated (schools that did both snapshots in 2015)



Source: *Tell Them From Me* primary student survey, 2015, NSW government schools.

Students' interest and motivation in school reflect their inherent tendency to learn (Ryan & Deci 2000). A drop in motivation and effort is likely to lead to a drop in class participation, less engagement in learning and lower levels of achievement. On the other hand, successfully keeping students motivated and interested in learning will support improved educational outcomes. For example, the most recent data set from the Progress in International Reading Literacy Study (PIRLS) shows that Year 4 students who were motivated or somewhat motivated to read had higher reading achievement than those who were not motivated to read (Figure 3).

Figure 3. PIRLS Year 4 Reading scores by students' motivation in reading



Source: Progress in International Reading and Literacy Study (PIRLS) Year 4 survey, 2011.

Teachers can help shape students' motivation through their teaching practices and classroom environment (New Zealand Ministry of Education 2010). Hattie (2009) notes that student motivation is 'highest when students are competent, have sufficient autonomy, set worthwhile goals, get feedback and are affirmed by others'. Goals need to direct students' attention to relevant behaviours or outcomes and motivate them to exert effort, but not be so unattainable that they impact on students' self-confidence (Hattie 2009). Effective feedback is that which focuses on tasks and processes that help students develop their own strategies for learning (CESE 2014).

3. Students' socio economic status (SES) is associated with students' levels of engagement during primary school

Teacher-student relations and student engagement

The *Tell Them From Me* primary survey reports that primary students have high levels of positive teacher-student relationships and effort (Figure 4). However, the survey showed a clear gap, on average, in the percentage of students from low- and high-SES backgrounds who reported positive teacher-student relationships and effort, particularly for boys (also Figure 4). Previous analysis of the NSW secondary school data showed that SES is strongly related to engagement (CESE 2015). This analysis of the primary school data confirms that this gap in engagement between low- and high-SES students emerges during the primary years.

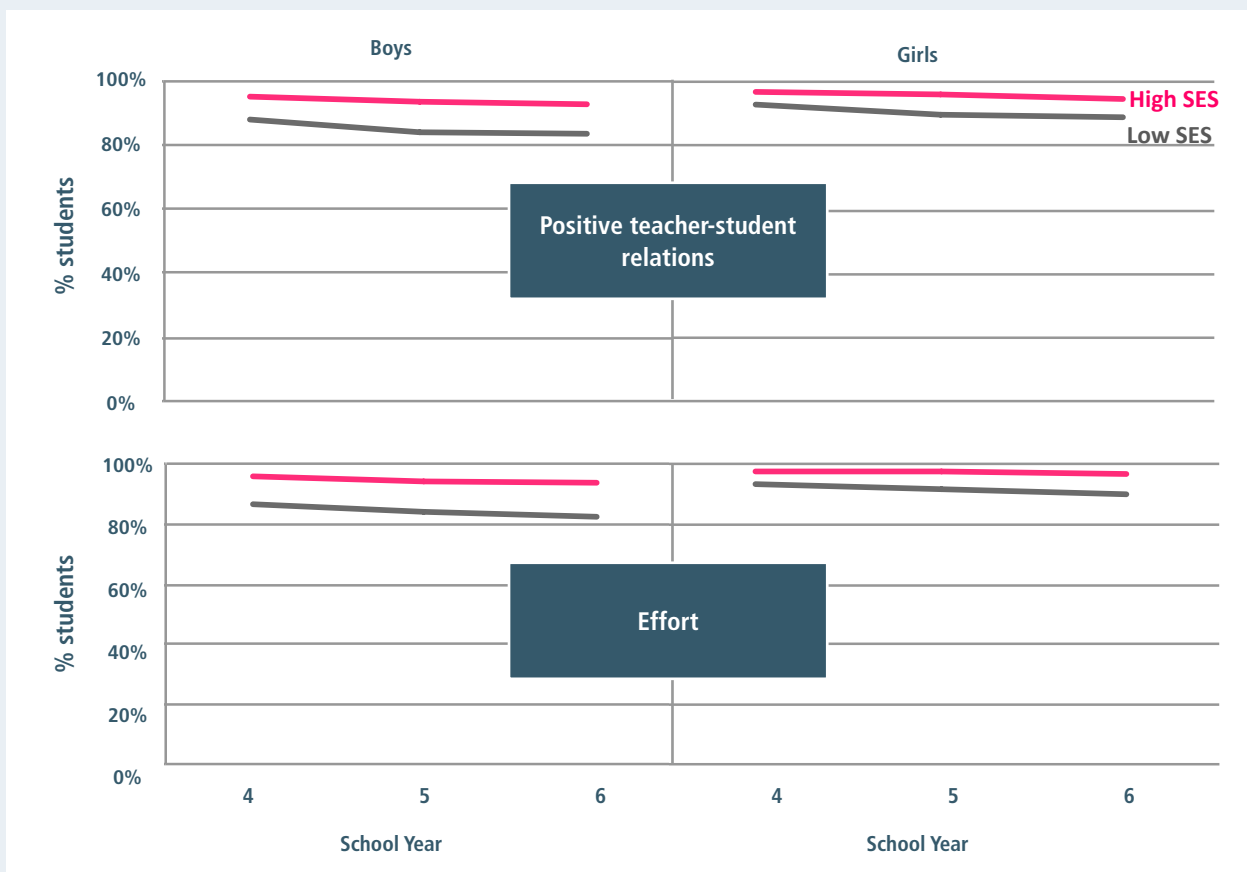
International research suggests that students who attend schools where teacher-student relationships and the learning climate are poor are more likely to have low levels of engagement with, and at school (OECD 2013). Teacher-student relationships may be of particular importance to groups of students who are at risk of school failure (Silver et al. 2005). For instance, as students approach the middle years of schooling, many students, particularly low-SES students and boys, have already decided that academic success depends on ability and that they do not have the ability to succeed (NSW DET, 2008). Students consistently report, however, that what helps them thrive in spite of these challenges is the quality of relationships they develop with teachers (Canadian Education Association 2009a).

A strong sense of relatedness better positions students to take on challenges, set positive goals, and have high expectations that extend and motivate them (Martin & Dowson 2009). This is in line with Hattie's meta-analysis of 'what works' in education that ranked positive teacher-student relationships in the top 20 (out of 138) influences on student achievement (Hattie 2009).

Studies also show that the quality of children's relationships with their teachers in the primary years has important implications for children's future academic performance and behaviour (Hughes & Kwok 2007). For example, Hamre and Pianta (2001) found that, after controlling for relevant baseline child characteristics, the quality of the teacher-student relationship in Kindergarten had an effect on academic and behavioural outcomes up to eight years later.



Figure 4. Percentage of primary students with positive teacher-student relations and effort at school, 2015



Source: *Tell Them From Me* primary student survey, 2015, NSW government schools.

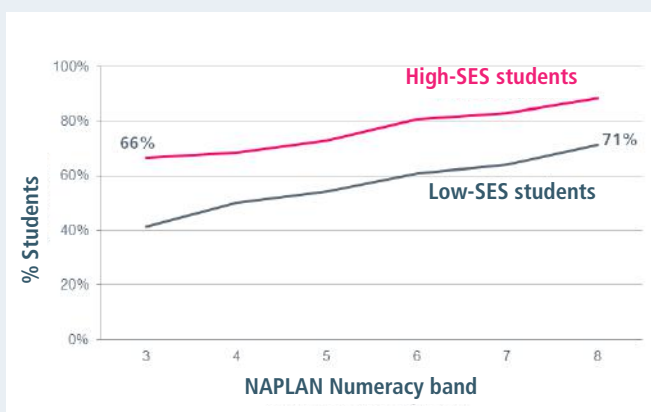
Student aspirations

High-achieving students from low-SES backgrounds in Year 5 had university aspirations only equivalent to low-achieving students from high-SES backgrounds (Figure 5). Previous analysis of the TTFM secondary data also revealed a gap in aspirations throughout secondary school between low- and high-SES students (CESE 2015). This analysis of primary school students confirms that low-SES students begin to lower their expectations during primary school.

Research suggests that young people form their aspirations and ideas about careers long before they are ready to join the workforce. Moulton et al. (2015) found that as early as seven years, children may have 'realistic' rather than 'fantasy' aspirations about their career. There is also evidence that students at this age may adjust their aspirations downwards before starting secondary school (Auger et al. 2005). The NSW post-school destinations survey revealed that low-SES students, in particular, are more vulnerable to believing from an early age that they will not complete Year 12 and that these decisions are often made well before the later years of secondary school. Two-thirds of Year 10 students surveyed in 2014 made their decision about when to leave school prior to Year 8 (Social Research Centre 2014).

It has been argued that if young people's aspirations are to be broadened, then career education should begin in primary school at the point at which students' aspirations are developing. The purpose of early stage career education is not to determine career paths for early-stage students, but rather to increase students' awareness of the range of life opportunities and how to access them (Hooley 2015). For example, a research project on effective practices in high-performing primary and secondary schools in NSW found that some schools are organising trips to a local university for students and parents to help raise their expectations about future academic study (CESE 2015a).

Figure 5. Percentage of Year 5 students who expect to go to university by NAPLAN Numeracy band, 2015.



Source: *Tell Them From Me* primary student survey, 2015, NSW government schools.

4. Teaching practice makes a difference

Student engagement

The *Tell Them From Me* student survey asks questions relating to quality teaching instruction. The quality instruction domain incorporates items related to teaching relevance, rigour and effective learning time. Questions include: whether things learned at school are useful and meaningful, ways that teachers help students learn, whether class time is used effectively and the role of teacher feedback. Results from the 2015 primary survey show that primary students who report receiving higher levels of quality instruction also report having a high sense of belonging at school (Figure 6). Students from low-SES backgrounds who report higher levels of quality instruction are more likely to be socially engaged at school than students from high-SES backgrounds who do not report high levels of quality instruction (Figure 6).

Students who attend schools where the learning climate is poor are more likely to have lower levels of engagement at school, including a weak sense of belonging and negative attitudes towards school (OECD 2013). Results from the 2011 Trends in International Mathematics and Science Study (TIMSS) show that more than 80 per cent of Year 4 students who agreed that they know what their teacher expects them to do, and that their teacher provided interesting things to do, felt like they belonged at school. In contrast, less than half of students who strongly disagreed with these statements felt like they belonged at school (unpublished TIMSS 2011 data). Some researchers have also found that the quality of children's classroom experiences are more predictive of the achievement of students from disadvantaged backgrounds than they are for their peers from high-SES backgrounds (Brody et al. 2002).

Figure 6. Primary student responses to 'I feel like I belong at school' by their overall score for quality instruction



Source: *Tell Them From Me* primary student survey, 2015, NSW government schools.

Student achievement

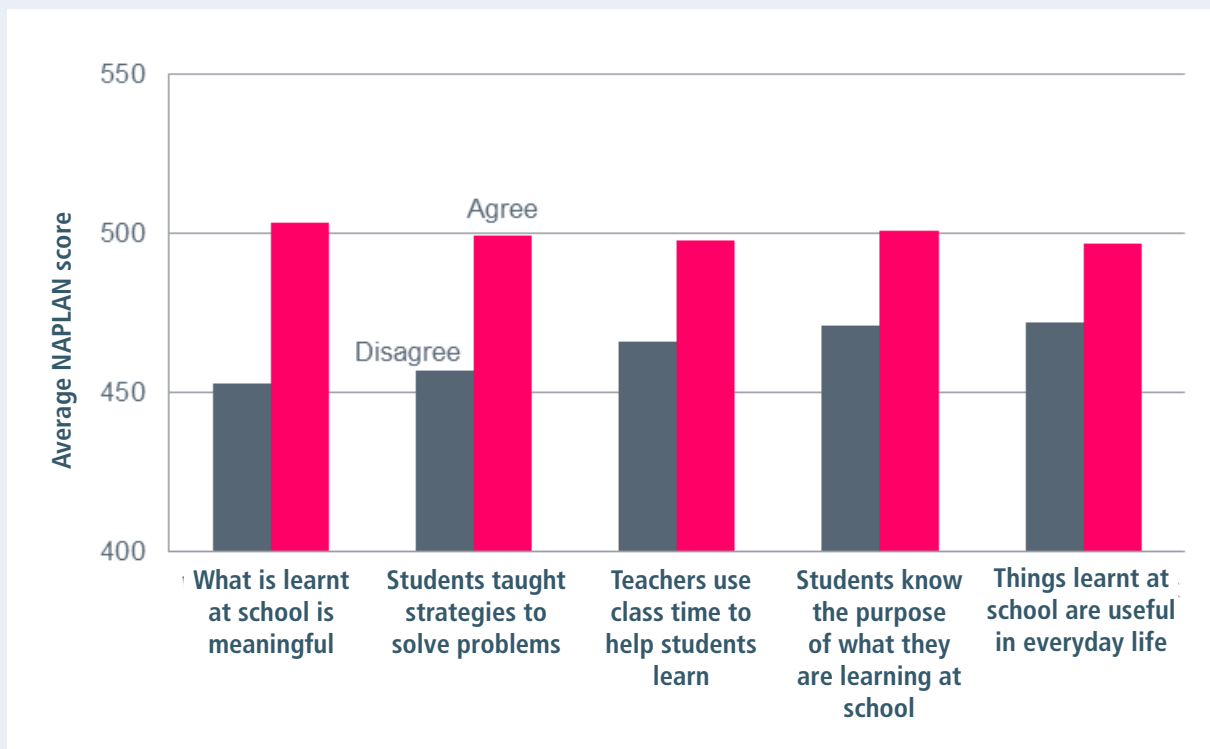
Analysis of the 2015 Tell Them From Me primary school student survey showed that students who agreed that they were receiving quality instruction in class also had, on average, higher reading and numeracy NAPLAN scores. Students were asked a number of questions relating to their perceptions of teaching at their school. Figure 7 shows the difference for selected questions in Year 5 NAPLAN reading scores between students who agreed with statements about the quality instruction they received and those who disagreed. This pattern was the same for numeracy scores.

Three of the five responses that showed the largest difference were items that measure the perceived relevance of school. Willms (Canadian Education Association 2009) states that the work students undertake needs to be relevant and meaningful and therefore worthy of their time and attention. Teaching students about literacy/numeracy in a 'real world context', for instance, has been used as a way to promote student learning in high-performing schools (CESE 2015a). When teachers place a utility value on a subject it can emphasise the importance that content has in students' own lives and for their future goals (Roberson 2013).

Australian and international research also highlights the importance of teachers communicating clear expectations of what students need to learn (CESE 2012). Analysis of the 2012 PISA data set found that students do better when teachers are explicit about their expectations, or in other words, are clear about what skills, knowledge, attitudes and values students should learn within a lesson (CESE 2012).



Figure 7. Year 5 NAPLAN scores (Reading) by experience of quality teaching



Source: NAPLAN data, 2015 and *Tell Them From Me* primary student survey, 2015, NSW government schools.

5. Not all high-achieving students are challenged in primary school

The *Tell Them From Me* survey also asks students questions relating to how challenged they feel at school. Figure 8 shows the percentage of children who report high levels of challenge by their NAPLAN score. Half of high-achieving students in Year 5 (defined as those who achieved a Band 8 or above in Year 5 NAPLAN) report that they are not challenged at school.

The literature shows that all students, including high-ability students, need to be continuously challenged to learn new things, in order for them to perform at their full potential (Rodgers 2007). When teachers set difficult or challenging goals based on students' abilities, students develop self-efficacy, confidence and improved learning outcomes. TIMSS data shows that Year 4 students whose teachers were very confident teaching mathematics (i.e. provided challenging tasks for capable students and adapted teaching to engage students) scored significantly higher on the TIMSS mathematics assessment than students whose teachers were only somewhat confident (Australian Council for Educational Research 2012). On the other hand, students who lack cognitive challenge feel frustrated with their school experience and are at risk of disengaging (Bond 2001, Victorian Department of Education and Early Childhood Development 2009). Willms (Canadian Education Association 2009) found that secondary students who have strong skills but do not feel challenged in their classes are less likely to be engaged than their peers with similar skills who do feel challenged.

To continuously challenge all students, teachers can differentiate teaching to different students by modifying one or more of the following: what students learn (the content); how they will learn it (the process); and how they will show what they have learnt (the product) (Tomlinson & Strickland 2005). Various studies point to the success of differentiated learning and its importance as a means of challenging and extending all students.

For example, Valiandes (2015) found that in primary classrooms where differentiated instruction methods were employed, students made better progress in literacy and reading than those in classrooms where differentiation was not employed. Kronborg and Plunkett (2008) suggest that curriculum differentiation is a particularly valuable strategy to help gifted students perform at their full potential. Vialle and Rogers (2012) go further and argue that there are distinct educational disadvantages for gifted students in classrooms where teachers do not use curriculum differentiation.

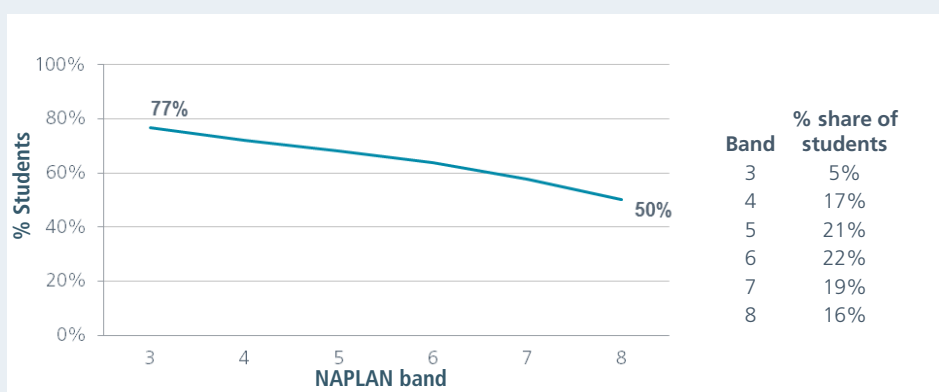
Conclusion

Gaining a better understanding of student engagement in the primary years may help schools establish patterns of school engagement and motivation that have both short and long term consequences for academic outcomes. The 2015 *Tell Them From Me* primary survey showed that, overall, primary school students are highly engaged in school. The majority of students have a positive sense of belonging at school, value school and are trying hard to succeed.

The NSW *Tell Them From Me* primary survey data, however, does highlight that, as early as the primary school years, there is a gap in the engagement of low- and high-SES students, and there is an overall decline in students' intellectual engagement from Year 4 to Year 6. It also provides evidence that a significant proportion of high-achieving primary students are not sufficiently challenged in the classroom.

Effective teaching practices can foster engagement in the classroom and this in turn, can increase student achievement. Classrooms in which students are given challenging tasks, encouraged to set goals, and effective feedback is provided, are more likely to have interested, motivated and engaged students which may enhance student learning.

Figure 8. Percentage of Year 5 students reporting high challenge at school, by Reading NAPLAN band, 2015



Source: NAPLAN data, 2015 and *Tell Them From Me* primary student survey, 2015, NSW government schools.

Future work

As more data is collected in future years, longitudinal work is planned to examine the impact of engagement on the transition of students from primary to secondary school. This research will track students over time, which will help identify whether higher levels of engagement in primary school result in higher levels of engagement in secondary school (particularly in the middle 'dip' years of school), and ultimately if this has an impact on long-term performance outcomes.



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